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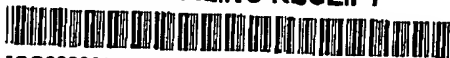
Jane C. Bogan

**RE:**U.S. Patent Application No. 09/510,322  
Anthony T. Yeung**Message:**

The official filing receipt shows a misspelling in the title of the application. Please correct the word Nucleid to read Nucleic. Transmitted herewith is a copy of the first sheet of the specification evidencing the correct spelling. It is further requested that a new official filing receipt be issued when the Patent and Trademark Office records have been corrected.

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## CORRECTED FILING RECEIPT



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UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/510,322	02/22/2000	1643	777	FCCC	16	29	12

000110  
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Date Mailed: 05/08/2000

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Anthony T. Yeung, Huntingdon Valley, PA ;

## Continuing Data as Claimed by Applicant

## Foreign Applications

If Required, Foreign Filing License Granted 04/18/2000

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## Title

Nucleid acid molecule encoding a mismatch endonuclease and methods of use thereof

## Preliminary Class

435

Data entry by : JONES, DIANE

Team : OIPE

Date: 05/08/2000

1. Nucleic acid molecule encoding a mismatch endonuclease and methods of use thereof

**NUCLEIC ACID MOLECULE ENCODING A MISMATCH ENDONUCLEASE  
AND METHODS OF USE THEREOF**

Anthony T. Yeung

Pursuant to 35 U.S.C. §202(c) it is acknowledged that the U.S. Government has certain rights in the invention described herein, which was made in part with funds from the National Institutes of Health, Grant Number, NIH CA71426.

**FIELD OF THE INVENTION**

This invention relates to materials and methods for the detection of mutations in targeted nucleic acids. More specifically, the invention provides nucleic acid molecules encoding a mismatch specific nuclease and methods of use of the enzyme that facilitate the genetic screening of hereditary diseases and cancer. The method is also useful for the detection of genetic polymorphisms.

**BACKGROUND OF THE INVENTION**

Several publications are referenced in this application by numerals in parenthesis in order to more fully describe the state of the art to which this invention pertains. Full citations for these references are found at the end of the specification. The disclosure of each of these publications is incorporated by reference in the present specification.

The sequence of nucleotides within a gene can be mutationally altered or "mismatched" in any of several ways, the most frequent of which being base-pair substitutions, frame-shift mutations and deletions or insertions. These mutations can be induced by environmental factors, such as radiation and mutagenic chemicals; errors are also occasionally committed by DNA polymerases during replication. Many human disease

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Bib Data Sheet

#6

<b>SERIAL NUMBER</b> 09/510,322	<b>FILING DATE</b> 02/22/2000 <b>RULE</b>	<b>CLASS</b> 435	<b>GROUP ART UNIT</b> 1643	<b>ATTORNEY DOCKET NO.</b> FCCC	
<b>APPLICANTS</b> Anthony T. Yeung, Huntingdon Valley, PA ;					
<b>** CONTINUING DATA *****</b>					
<b>** FOREIGN APPLICATIONS *****</b>					
<b>IF REQUIRED, FOREIGN FILING LICENSE</b> <b>GRANTED ** 04/18/2000</b> <b>** SMALL ENTITY **</b>					
Foreign Priority claimed <input type="checkbox"/> yes <input type="checkbox"/> no		<b>STATE OR COUNTRY</b> PA	<b>SHEETS DRAWING</b> 16	<b>TOTAL CLAIMS</b> 29	<b>INDEPENDENT CLAIMS</b> 12
35 USC 119 (a-d) conditions met <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance					
Verified and Acknowledged Examiner's Signature _____ Initials _____					
<b>ADDRESS</b> 110					
<b>TITLE</b> Nucleic acid molecule encoding a mismatch endonuclease and methods of use thereof					
<b>FILING FEE RECEIVED</b> 777	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees ( Filing ) <input type="checkbox"/> 1.17 Fees ( Processing Ext. of time ) <input type="checkbox"/> 1.18 Fees ( Issue ) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit		